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SPEECH ON THE BILL FOR
ESTABLISHING THE SMITHSONIAN INST.

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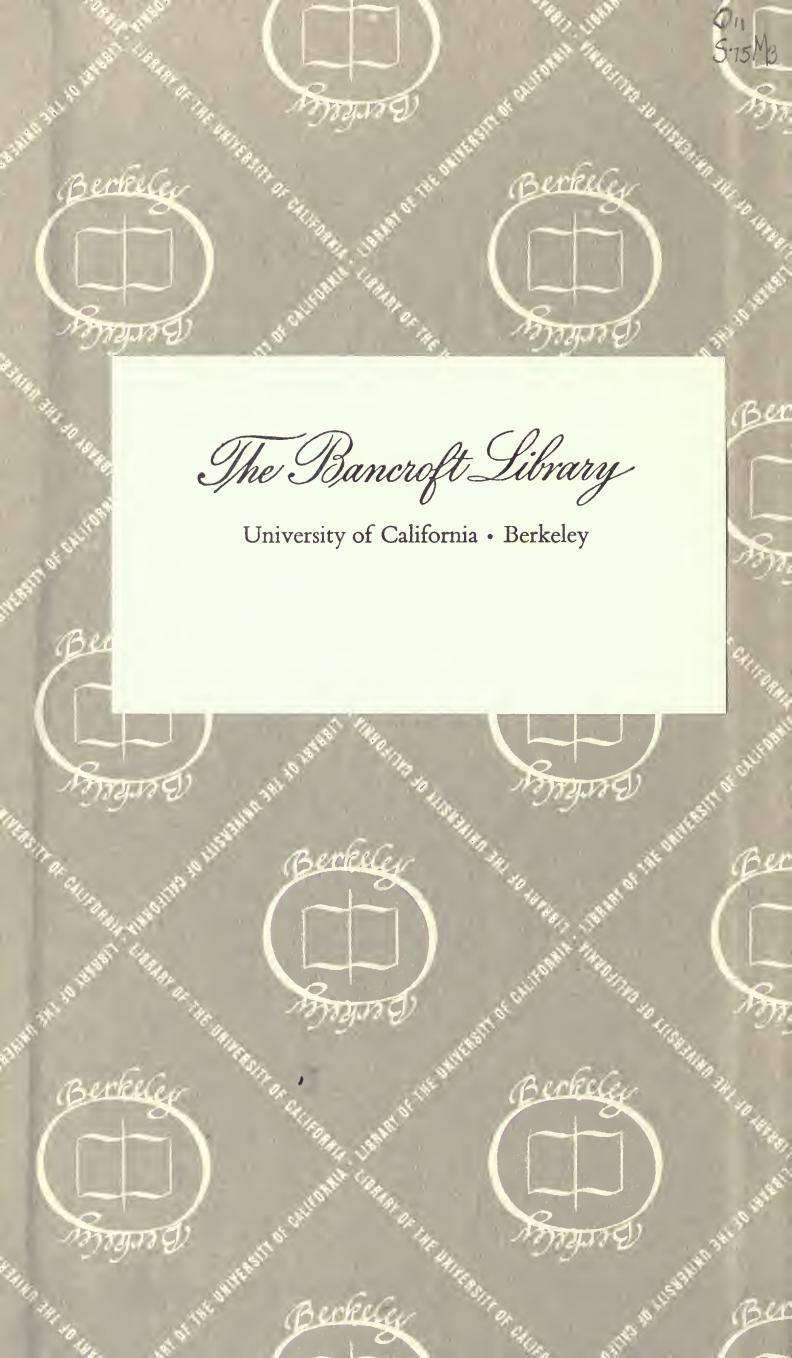

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SPEECH

OF

George Perkins

MR. MARSH, OF VERMONT,

ON THE BILL FOR ESTABLISHING

THE SMITHSONIAN INSTITUTION,

DELIVERED IN

THE HOUSE OF REPRESENTATIVES OF THE U. STATES, APRIL 22, 1846.

WASHINGTON:

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1846.

1846, May 19.
Gift of
the Author,
of Burlington, Vt.

NOTE.

The history of the Smithsonian Fund is briefly as follows: JAMES SMITHSON, of London, who died at Genoa, several years since, bequeathed the reversion of his whole estate to the United States of America, to "found at Washington, under the name of the Smithsonian Institution, an establishment for the increase and diffusion of knowledge among men."

The bequest was communicated to Congress, by the President, on the 17th December, 1835, and was accepted by Congress, by an act approved July 1st, 1836, pledging "the faith of the United States" to the due application of the fund to the purposes of the bequest.

On the 1st of September, 1838, the proceeds of the estate, amounting to $508,318 46, were paid into the United States Mint, and, by authority of Congress, were invested in State stocks, principally of the State of Arkansas.

The bill reported by the Special Committee, at the present session, provides for expending the interest already accrued in buildings and other accommodations for the Institution, and for appropriating the interest to accrue hereafter to the purposes indicated in the following remarks.

LOAN STACK

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SPEECH.

The House being in Committee of the Whole, and having under consideration the bill for establishing the Smithsonian Institution—

MR. MARSH, of Vermont, after some preliminary observations, said: I agree, Mr. Chairman, with those who doubt whether it was entirely wise in the Congress of the United States to accept the munificent bequest of Mr. Smithson. Were the question now first presented, I should hesitate. Not that I deny or even doubt the power of Congress to administer this charity, but I should question the propriety of assuming a trust, which there is too much reason to fear we shall not discharge in such a manner as to give the fullest effect to the purposes of the enlightened donor. The history of this bequest confirms these scruples. It is now nearly ten years since Congress, by a solemn act, assumed the trust, and pledged "the faith of the United States" to its faithful execution. The money was soon after received, and immediately passed out of the hands of the Government, not irrecoverably, it is to be hoped, but it is, at all events, now beyond our control, and no portion of it has been yet applied to the noble ends of the bequest. The difficulties which have thus far prevented the application of the fund to its proper uses still exist, and are of a character not likely to be removed. Our Government has no department which can be conveniently charged with the administration of the charity, and must, therefore, begin with the organization of one for that special purpose. In this incipient step, we meet with obstacles at every corner. Questions are at once raised that are not yet solved, and are certainly in themselves of no easy solution. How far *can*, how far *ought*, Congress to act in the direct control of the charity—how far should it make specific what the will of the testator has left general? If Congress shall direct the particular uses to which the fund shall be applied, what shall those uses be? Or shall we, on the other hand, delegate the trust; and, if so, shall we impose its duties on departments already too heavily burdened with official responsibilities, or shall we create a corporation or other special agency for the purpose? Is there not danger that the institution will be abused for party ends, and merely serve to swell the already overgrown patronage of the Executive? A previous suggestion of these difficulties might well have led us to hesitate, before we contracted obligations of so delicate a character, and I fear they are yet destined for some time longer to impede the satisfactory action of Congress.

But it is now quite time that we apply ourselves in earnest to the work of redeeming our country from the reproach of infidelity in the discharge of so high and solemn a trust, and that at the earliest practicable period, and before the subject shall become an element in our party dissensions, we strive to make available to our fellow-citizens, and to all men, a gift as splendid as its purposes are noble.

The delay, long and unwarrantable as it is, has not been without its uses. It has afforded abundant time for the collection, comparison, and concentration of opinion; able men in every walk of scholastic and professional life have been consulted; many of the wisest American statesmen have

brought the energies of their intellects to the examination of the subject; it has been largely discussed in both branches of the national legislature; numerous studiously considered plans have been suggested, providing in different ways for every interest which can be supposed to be embraced within the views of the testator, and the bill now before us is a compilation, an anthology, so to speak, from all these, though possessing original features—valuable features—the credit of which belongs to the chairman of the Special Committee, (Mr. OWEN,) by whom the bill was reported.

In a case where there is room for so great diversity of opinion as in this, there can be no hope of the adoption of any plan not conceived in a spirit of compromise; and on this, as on another larger question, however widely apart we may be at first, we shall probably find ourselves in the end obliged to settle down upon the parallel of 49°. The bill is reported by the special committee as a compromise, and probably no one of the gentlemen concerned in its preparation is quite satisfied with its provisions; no one believes it to be the best plan that could be devised; but they felt the necessity of deferring to each other, as well as to the probable opinion of Congress, and were nearly unanimous in thinking it more likely to harmonize discordant views than any other plan suggested. It was in this belief, and in consideration of the importance and the duty of early action, that I, as a member of that committee, assented to the report, regarding the scheme, however, not merely as a necessary compromise, but as rather an experiment, which admitted, and which I trusted would hereafter receive, great changes in its conditions, than as a complete working model.

It has all along been assumed as a cardinal principle, that we ought to follow implicitly the will of the liberal donor, and it has been thought unfortunate that he was not more specific in the appropriation of his bounty. But he has given a proof of a generous and enlightened spirit, and at the same time has paid this nation the highest possible compliment, by using the largest and most comprehensive language in his bequest; thus in effect saying, that he preferred rather to entrust the disposal of this great fund to the wisdom and intelligence of a free and enlightened people, than to limit its use to purposes accordant with his own peculiar tastes. Some gentlemen have thought, that inasmuch as the testator has not specified the particular mode by which he would have the great ends of his charity accomplished, we are bound to infer his wishes from the character of his favorite pursuits, and to conform to his supposed views, by confining the fund to the promotion of objects, to the cultivation of which his own time and researches were devoted. But this would be no true conformity to the enlightened liberality which prompted so munificent a gift. It would be a disparagement to so generous a spirit to imagine, that while saying so much, he meant so little. It would be so wide a departure from his large and wise purposes, as fairly to defeat his noble aims. Had he been in fact a person of so narrow views as this argument supposes, he would have guarded against the possible misapplication of his charity, by express words of direction or restriction; and it is a proof of rare generosity in an enthusiastic lover of an engrossing pursuit, that in a bequest appropriating his whole estate to the high purpose of increasing and diffusing knowledge among men, he made no special provision for the promotion of those sciences which were to him the most attractive of studies.

After all, however, he was not a student of so limited a range of inquiry as has been sometimes assumed. He was a man of studious and scholastic

habits, and of large and liberal research, specially devoted, indeed, to the cultivation of certain branches of natural knowledge, but excluding no science, no philosophy, from his sympathies. Too enlightened to be ignorant of the *commune vinculum*, the common bond of mutual relation, which makes all knowledges reciprocally communicative and receptive—each borrowing light from all, and each in turn reflecting light upon all—he was too generous to confine his bounty to the gratification of tastes entirely similar to his own. None of the objects embraced in this bill are alien from his probable views. Books, indeed, he did not collect, as we propose to do, because to one who had no fixed habitation a library would have been but an encumbrance; and he lived in the great cities of Europe, where public and private munificence has collected and devoted to general use such ample repositories of the records of knowledge, that individual accumulation of such stores is almost superfluous. But, though he gathered no library, his writings show him to have been a man of somewhat multifarious reading; and it is quite a gratuitous assumption to suppose him to have been one of those narrow minds, who think no path worth travelling but that which they have trodden, no field worth cultivating whose fruits they have never plucked. Apart, then, from the liberty which the broad words of the will give us, we are entitled to believe that the purposes of the testator were as comprehensive as the language he has used—that he aimed at promoting all knowledge for the common benefit of all men—and to appropriate to the American people, in a spirit worthy of the object and of ourselves, the compliment he has paid us, by selecting us as the dispensers of a charity which knows no limits but the utmost bounds of human knowledge, and claims as its recipients the men of this and of all coming ages.

The limitation of the bequest, then, is to the "increase and diffusion of knowledge among men." Here two objects are aimed at. Increase, enlargement, extension, progress; and Diffusion, spread, communication, dissemination. These the bill seeks to accomplish by various means. It proposes to *increase* knowledge by collecting specimens of the works of nature, from every clime, and in each of her kingdoms; by gathering objects in every branch of industrial, decorative, representative, and imaginative art; by accumulating the records of human action, and thought, and imagination, in every form of literature; by instituting experimental researches in agriculture, in horticulture, in chemistry, and in other studies founded upon observation. It proposes to *diffuse* the knowledge thus accumulated, acquired, and extended, by throwing open to public use the diversified collections of the institution in every branch of human inquiry; by lectures upon every subject of liberal interest; by a normal school, where teachers shall become pupils, and the best modes that experience has devised for imparting the rudiments of knowledge shall be communicated; by preparing and distributing models of scientific apparatus, and by the publication of lectures, essays, manuals, and treatises.

Of the various instrumentalities recommended by this noble and imposing scheme, the simplest and most efficient, both as it respects the increase and the diffusion of knowledge, is, in my judgment, the provision for collecting for public use a library, a museum, and a gallery of art; and I should personally much prefer, that for a reasonable period the entire income of the fund should be expended in carrying out this branch of the plan.

But in expressing my preference for such a present application of the moneys of the fund, and my belief that we should thus best accomplish the

purposes of the donor, I desire not to be understood as speaking contemptuously of research and experiment in natural knowledge and the economic arts. I have too much both of interest and of feeling staked upon the prosperity of these arts, and they are to me subjects too intrinsically attractive, to allow me to be indifferent to any measure which promises to promote their advancement. I am even convinced, that their earnest cultivation and extension are absolutely indispensable to our national prosperity, our true independence, and almost our political existence; and I am at all times ready to maintain their claim to all the legislative favor which it is within the power of the General Government to bestow. I would not, therefore, exclude them from the plan of a great national institution for the promotion of all good learning; but I desire to assign them their true place in the scale of human knowledge, and I must be permitted to express my dissent from the doctrine implied by the bill, as originally framed and referred to the Special Committee, which confines all knowledge, all science, to the numerical and quantitative values of material things. Researches in such branches as were the favored objects of that bill, have in general little of a really scientific character. Geology, mineralogy, even chemistry, are but assemblages of apparent facts empirically established; and this must always be true, to a great extent, of every study which rests upon observation and experiment alone. True science is the classification and arrangement of necessary primary truths, according to their relations with each other, and in reference to the logical deductions which may be made from them. Such science, the only absolute *knowledge*, is the highest and worthiest object of human inquiry, and must be drawn from deeper sources than the crucible and the retort.

The bill provides for the construction of buildings, with suitable apartments for a library, and for collections in the various branches of natural knowledge and of art, and directs the annual expenditure of a sum "not exceeding an average of ten thousand dollars, for the gradual formation of a library composed of valuable works pertaining to all departments of human knowledge." As I have already indicated, I consider this the most valuable feature of the plan, though I think the amount unwisely restricted; and I shall confine the few observations I design to submit respecting the bill chiefly to the consideration of this single provision. I had originally purposed to examine the subject from quite a different point of view, but the eloquent remarks of the Chairman of the Special Committee, (Mr. Owen,) which seem to be intended as an argument rather against this provision than in favor of the bill, and as a reply to the able and brilliant speech of a distinguished member of another branch of Congress, upon a former occasion, (Mr. Choate,) has induced me to take a somewhat narrower range than I should otherwise have done. I wish, sir, that Senator were here to rejoin, in his own proper person, to the beautiful speech of the gentleman from Indiana, who seems rather to admire the rhetoric, than to be convinced by the logic, of the eloquent orator to whom I refer. In that case, sir, I think my friend from Indiana, trenchant as are his own weapons, would feel, as many have felt before, that the polished blade of the gentleman, who lately did such honor to Massachusetts in the Senate of the United States, is not the less keen, because, like Harmodius and Aristogiton, he wraps it in sprays of myrtle.

It has been objected by some, that the appropriation is too large for the purpose expressed—"The gradual formation of a library composed of valu-

able works pertaining to all departments of human knowledge." But if we consider how much is embraced in these comprehensive words, we shall arrive at a very different conclusion. The great libraries of Europe range from 200,000 to half a million, or perhaps even 750,000 volumes. That of the University of Gottingen, the most useful of all for the purposes of general scholarship, contains about 300,000. How long would it require to collect a library like this, with an annual expenditure of ten thousand dollars? The Library of Congress is said to have cost about $3.50 per volume; but, as a whole, it has not been economically purchased, and though composed chiefly of works which do not maintain a permanently high price, yet as a large proportion of the annual purchases consists of *new* books from the press of London, the dearest book market in the world, its cost has been much higher than that of a great miscellaneous library ought to be. The best public library in America, for its extent, (10,000 volumes,) which I am happy to say is that of the university of my native State, Vermont, cost but $1.50 per volume. It can hardly be expected, that Government, which always pays the highest price, will be so favorably dealt with; and it is scarcely to be hoped, that it will succeed in securing the services of so faithful and so competent an agent as was employed by the University of Vermont.

I have myself been, unfortunately for my purse, a book-buyer, and have had occasion to procure books, not only in this country, but from all the principal book marts in Western Europe. From my own experience, and some inquiry, I am satisfied that the whole cost of such books as a national library ought to consist of, including binding and all other charges, except the compensation and travelling expenses of an agent, should not exceed two dollars per volume. If you allow $2,000 for the compensation and expenses of an agent, (which would not be increased upon a considerably larger expenditure,) you have $8,000 remaining, which, at the average cost I have supposed, would purchase four thousand volumes a year. How long, I repeat, would it require at this rate to accumulate a library equal in extent to that of Gottingen? More than seventy years. In some seventy years, then, in three score years and ten, when you, sir, and I, and all who hear my voice, and all the present actors in this busy world shall be numbered with the dead, we may hope, that free, enlightened America, by the too sparing use of the generous bounty of a stranger, will possess a collection of the recorded workings of the human mind, not inferior to that now enjoyed by a single school in the miniature kingdom of Hanover! And what provision is made for the increase of books meanwhile? Look at the activity of the presses of London and Paris—at the vastly prolific literature of Germany—at the increasing production in our own country—to omit the smaller but still valuable contributions to the store of human knowledge in the languages of other countries, and you will perceive that this appropriation, so far from being extravagantly large, will scarcely even suffice for keeping up with the current literature of the day. Gottingen mean time will go on. Her 300,000 volumes will increase in seventy years to half a million, and we shall still lag 200,000 volumes behind.

The utility of great libraries has been questioned, and it has been confidently asserted, that all truly valuable knowledge is comprised in a comparatively small number of volumes. It is said that the vast collections of the Vatican, of Paris, of Munich, and of Copenhagen are, in a great measure, composed of works originally worthless, or now obsolete, or superseded by

new editions, or surpassed by later treatises. That there is some foundation for this opinion I shall not deny; but after every deduction is made upon these accounts, there will still remain in any of these libraries a great number of works which, having originally had intrinsic worth, have yet their permanent value. Because a newer, or better, or truer book, upon a given subject, now exists, it does not necessarily follow that the older and inferior is to be rejected. It may contain important truths or interesting views that later, and, upon the whole, better authors have overlooked—it may embody curious anecdotes of forgotten times—it may be valuable as an illustration of the history of opinion, or as a model of composition; or, if of great antiquity, it may possess much interest as a specimen of early typography.

Again, because any one individual, even the most learned, cannot, in this short life, exhaust all art, because he can thoroughly master but a few hundred volumes, read, or even have occasion to consult, but a few thousands, we are not therefore authorized to conclude that all beyond these are superfluous. Each of the hundred authors, who have produced those thousands of volumes, had read also *his* thousands. The scholar is formed, not by the books alone that he has read, but he receives, at second hand, the essence of multitudes of others; for every good book supposes and implies the previous existence of numerous other good books.

An individual even of moderate means, and who is content to confine his studies within somewhat narrow bounds, may select and acquire for himself a library adequate to his own intellectual wants and tastes, though entirely unsuited to the purposes of one of different or larger aims, and by the diligent use of this, he may attain a high degree of mental culture; but a national library can be accommodated to no narrow or arbitrary standard. It must embrace all science—all history—all languages. It must be extensive enough, and diversified enough, to furnish aliment for the cravings of every appetite. We need some great establishment, that shall not hoard its treasures with the jealous niggardliness which locks up the libraries of Britain, but shall emulate the generous munificence which throws open to the world the boundless stores of literary wealth of Germany and France—some exhaustless fountain, where the poorest and humblest aspirant may slake his thirst for knowledge, without money and without price.

Of all places in our territory, this central heart of the nation is the fittest for such an establishment. It is situated in the middle zone of our system—easily and cheaply accessible from every quarter of the Union—blessed with a mild, a salubrious, and an equable climate—abundant in the necessaries and comforts of physical life—far removed from the din of commerce, and free from narrow and sectional influences.

Let us here erect such a temple of the muses, served and guarded by no exclusive priesthood, but with its hundred gates thrown open, that every votary may enter unquestioned, and you will find it thronged with ardent worshippers, who, though poverty may compel them to subsist, like Heyne, on the pods of pulse and the parings of roots, shall yet forget the hunger of the body in the more craving wants of the soul.

From the limited powers of our National Government, and the jealous care with which their exercise is watched and resisted, in cases where the interests of mere humanity—not party—are concerned, it can do little for the general promotion of literature and science. The present is a rare opportunity, the only one yet offered, and never, perhaps, to be repeated, for taking our proper place among the nations of the earth, not merely as a

political society, but as patrons of knowledge and the liberal arts. The treasures of our national wealth are, perhaps, not at our command for this purpose; and it is only by the discreet use of this bequest, and of the funds which private liberality will assuredly contribute to extend the means of the institution, that we can hope to kindle a luminary, whose light shall encompass the earth, and repay to Europe the illumination we have borrowed from her.

The library of Gottingen, of which I have spoken, contains six times as many volumes as the largest American collections; it has been accumulated within a comparatively short period—scarcely a century—and, having been selected upon a fixed plan by the ablest scholars in the world, it contains few books originally without merit, few duplicates, and few which the progress of science and literature have rendered worthless. And yet, though upon the whole the best existing library, it, in many departments, does not approach to completeness, and the scholars who resort to it are often obliged to seek elsewhere sources of knowledge which Gottingen does not afford.

We shall perhaps be best able to estimate our own deficiencies and wants by comparing the contents of our Congressional library with the actual extent of existing literature. The library of Congress contains more than 40,000 volumes, in general valuable and well chosen, with not many duplicates, not many books that one would altogether reject. It is not composed, like too many of our public libraries, in any considerable degree, of books which have been *given*, because the proprietor found them too worthless to keep, but it has been almost wholly purchased and selected from the best European sale catalogues, and yet there is no one branch of liberal study, even among those of greatest interest to ourselves, in which it is not miserably deficient.

There is, perhaps, no better general catalogue of such books, in the various departments of learning, as are prized by collectors, than the Table Methodique, in the last edition of Brunet's Manuel du Libraire. Brunet enumerates more than 30,000 works, making, in the whole, about 100,000 volumes, and professes to specify only the most important and the rarest. The list contains, no doubt, very many works of little intrinsic worth, or even adventitious interest; but it is, perhaps, not too much to say, that a library of the larger class ought to possess at least 25,000 of the volumes it specifies. But this list is even tolerably complete in but few departments. In French history and literature, in civil and international law, in the history and literature of classical antiquity and of early typography, in theology, in medicine, you will find it perhaps nearly satisfactory; but in the history and literature of all other nations, and in almost every other field of inquiry but those I have mentioned, the learned scholar will miss the titles of many more valuable works than he will find, while many highly interesting and important chapters are almost entirely blank. The Congressional library does not probably contain one-fourth even of the small proportion of Brunet's list which I have described as of intrinsic and permanent value. But are there not numerous branches of knowledge well worthy a place in every great literary repository, and which are yet wholly unrepresented in our alcoves? Let us devote a moment to some dry statistics concerning the literature of continental Europe. The Bibliotheca Historica Sueo-Gothica of Warmholtz, the last volume of which appeared in 1817, enumerates no less than 10,000 works illustrative of the *history* of Sweden alone; and the thirty years since have added greatly to the number. The Literatur-Lexicon of

Nyerup, published in 1820, gives the titles of probably an equal number of works belonging to the literature of the countries subject to the Danish crown. Holland, too, has noble historians, naturalists, poets, and dramatists, and has produced many works of unsurpassed value upon the history of commerce and navigation. The list of Brunet contains not one in a hundred of the standard authors of these several countries; and the library of Congress, as far as I remember, does not possess a volume in the language of either of them. Again, consider the vast extent and surpassing value of the literature of Germany. Of the 3,000,000 different volumes of printed books supposed to exist, it is computed that more than one-third are in the German language. The learning of Germany embraces every field of human inquiry, and the efforts of her scholars have done more to extend the bounds of modern knowledge than the united labors of the rest of the Christian world. Every scholar familiar with her literature—let me not say *familiar*, for life is too short for any man to count its boundless treasures—but every enlightened student who has but dipped into it, will readily confess its infinite superiority to any other, I might almost say to all other literatures. It has been affirmed, that more than one-half of our population is of recent German origin, and German is the vernacular tongue of extensive districts of American soil. Yet the library of Congress contains not one hundred, probably not fifty, volumes in that noble language. You have none of the numerous writers of the vast empire of Russia, or of Poland; nothing of the curious literatures of Hungary and Bohemia; only the commonest books in Italian and Spanish; not a volume in the language of Portugal, rich as it is in various literature, and especially in the wild yet true romance of oriental discovery and conquest, that comes down to us through the pages of learned De Barros and quaint old Castanheda, ringing upon the ear and stirring the blood like the sound of a far-off trumpet. In the boundless world, too, of oriental learning, of which our increasing commercial relations with the countries of the East render it highly desirable that we should possess the means of acquiring a knowledge, you have nothing to shew but a few translations of the Bible, and perhaps some works of devotion or elementary religious doctrine, which American missionaries have presented you.

Will it not be admitted that an American library, the national library of a people descended from men of every clime, and blood, and language—a country which throws open its doors as an asylum for the oppressed of every race and every tongue, should be somewhat more comprehensive in its range? That it should at least have some representatives of every branch of human learning, some memorials of every written tongue that is spoken within its borders?

But, even in English literature, our library is sadly meagre. How far are we from possessing a tolerably complete series of the English printed books of the fifteenth and sixteenth centuries, or even of that best age of English learning, that age with which every honest American most truly sympathizes, the age of Cromwell and of Milton? Would it not be well to have at our command the means of enabling some diligent scholar to write what has not yet been worthily written, or indeed scarce even attempted, a complete history of the literature of our Anglo-Saxon mother tongue—or to perform that Herculean task, which, in spite of the vaunted but feeble labors of Webster, remains still to be accomplished, the preparation of a respectable English dictionary?

If there is any department of learning, in which a library selected for the

use of the representatives of a democracy should be complete, it is that of history. But what have we of the sources of historical investigation? *Histories* indeed we have, but little *history*. True, we have Robertson, and Hume, and Voltaire, and Gibbon, and, above all, Alison, a popular writer in these days, and—

> "Like Sir Agrippa, for profound
> And solid lying, much renowned;"

but of those materials from which *true* history is to be drawn, we have little, very little. The works belonging to the proper history of the American continent alone, every one of which it would be highly desirable to possess, number certainly more than 20,000 volumes, fully equal to one-half the Congressional library, and of these we have, as yet, but a small proportion.

If the bounty of the generous foreigner, in spite of the broad language which expresses his liberal purpose, is to be confined to the narrow uses which some gentlemen propose, the appropriation of $10,000 per annum is unnecessarily large, at least for permanent expenditure. A moderate amount would collect all that is worth buying in the experimental sciences, and a small annual appropriation would keep up with the advance of knowledge in this department. But it is due to ourselves, due to our age, due to the lofty views which inspired a benefaction so splendid—a gift clogged with no narrow conditions—that we act in a more generous, a wider, a more catholic spirit; that we remember, that "knowledge" embraces other arts than those of bread; that man's economical interests are not his highest.

The purpose of the testator, which we are to carry out, was "the increase and diffusion of knowledge among men." What, then, is the most efficient means of increasing and diffusing knowledge? Increase, accumulation, must precede diffusion. Every rill supposes a fountain; and knowledge cannot "flow down our streets like a river," without there be first built and filled a capacious reservoir, from which those streams shall issue. It is an error to suppose that the accumulation of the stores of existing learning, the amassing of the records of intellectual action, does not tend also to *increase* knowledge. What is there *new* in the material world, except by extraction or combination? How are new substances formed, or the stock of a given substance increased, by the chemistry of nature or of art? By new combinations or decompositions of known and pre-existing elements. The products of the experimental or manufacturing laboratory are no new creations; but their elements are first extracted by the decomposition of old compounds, and then recombined in new forms. Thus is it also, in some degree, with the immaterial products of the human mind; but there is this difference; knowledge grows not alone by extraction and combination, but, unlike the dead matter with which chemistry deals, it is itself organic, living, productive. There is moreover, as I have already hinted, between all branches of knowledge and of liberal art, whether speculative or experimental, such an indissoluble bond, such a relation of interdependence, that you cannot advance any one without at the same time promoting all others. The pioneer in every walk of science strikes out sparks, that not only guide his own researches, but illuminate also the paths of those around him, though they may be laboring in quite other directions. Examples of this kind might be multiplied without end, but I will content myself with an illustration or two from a science which deals only in abstract numbers and imaginary quantities, and utterly rejects experiment and observation as tests of truth or as instruments of its discovery. Who would

have supposed that the intervals of the diatonic scale in music were capable of exact appreciation, and their relations of precise ascertainment, by numerical quantities? Who would have expected that pure mathematics would have been appealed to to decide between the rival claims of the corpuscular and the undulatory theories of light; or to ascertain the proportions and relations of elementary bodies not appreciable by any of the senses, in chemical combinations; or, as my accomplished friend from South Carolina (Mr. HOLMES) suggests, that the authenticity of a disputed text in the Scriptures would be determined by an algebraical theorem? What do not astronomy, navigation, civil engineering, practical mechanics, and all the experimental sciences, owe to this one science, which in its investigations appeals to no empiricism, calls in the aid of none of the senses, none of the machinery of art or of nature?

But, independent of this particular point, the aid which the physical sciences may expect to derive from mere speculative knowledge, I should hope that at this time, and in this place, one might safely venture a plea in behalf of all that higher knowledge which serves to humanize, to refine, to elevate, to make men more deeply wise, better, less thoughtful of material interests, and more regardful of eternal truths. And let it not be said that our own brief history proves that great libraries are superfluous, because without them we have produced statesmen, civilians, orators, and jurisprudents, no wise inferior to the ablest of their European contemporaries. Without dwelling upon the stimulus of popular institutions, and the stirring excitement of our revolutionary and later history, which have tended to encourage the development of this species of talent, the objection is sufficiently answered by saying that, in the case of most of the American statesmen of the Revolution, as well as of many of later date, private wealth has supplied the place of public provisions for the attainment of knowledge. In the period of our colonial history, the sons of wealthy families were often educated in the best schools of Europe, and the framers of our Constitution were chiefly men of high education and elegant attainments. Jefferson, whose writings are canonical with the Democracy, had the best private library in America, and was a man of multifarious, if not of profound learning. The State papers of that remarkable era are, with few exceptions, obviously productions of men not merely of inspired genius or of patient thought, but of laborious acquisition; and they are full, not of that cheap learning which is proved by pedantic quotation, but of that sound discipline which is the unequivocal result of extensive reading and diligent research. Who have been the men, in all ages, that have exercised the wisest and most permanent influence both on the moral and physical well-being of man? The spirit of the crusades was roused by the preaching of a thoughtful solitary; Columbus was a learned scholar, and Luther but a studious monk. Watt, the great improver of the steam engine, was a man of curious and recondite learning. Bonaparte was carefully educated at the school of Brienne, and was through life a liberal patron of learning and the arts. The glorious rebellion of 1649 was the work of men of the closet; and Milton, who to our shame is less known among us by his prose than by his poetry, was its apostle. Our own independence was declared and maintained by scholars, and all men know that the French revolution had its germ in the writings of the Encyclopædists. All men, in fact, who have acted upon opinion, who have contributed to establish principles that have left their impress for ages, have spent some part of their lives in scholastic

retirement. It is this very point—the maintenance of principles discovered and defended by men prepared for that service by severe discipline and laborious study—that so strikingly distinguishes the English rebellion of 1649 and our own Revolution from most other insurrectionary movements, and particularly from the French revolution. The English and American statesmen of those two periods were contending for *truths*, the French atheists and philosophers for *interests;* the former sought to learn their *duties*, the latter concerned themselves only about their *rights;* the Anglo-Saxon was inspired by *principle*, the Gaul was instigated by *passion*.

The principles of American liberty, which education and habit have rendered so familiar to us, that we fancy them intuitive or even instinctive, are in truth no more obvious than the physical theory of the universe; and the study of the philosophical and political history of the last three centuries will convince every enquirer, that their development from their germs, as involved in the fundamental doctrines of the Reformation, has been the work not of unconscious time only, but has required the labor of successive generations of philosophers and statesmen.

I look upon a great and well selected library, composed of the monuments of all knowledge, in all tongues, as the most effective means of releasing us from the slavish deference, which, in spite of our loud and vaporing protestations of independence, we habitually pay to English precedents and authorities, in all matters of opinion. Our history and our political experience are so brief, that, in the multitude of new cases which are perpetually arising, we are often at a loss for domestic parallels, and find it cheaper to cite an English dictum than to investigate a question upon more independent grounds. Not only are our parliamentary law, our legislative action, our judicial proceedings, to a great extent fashioned after those of the mother country, but the fundamental principles of our government, our theory of the political rights of man, are often distorted, in order that they may be accommodated to rules and definitions drawn from English constitutional law. Even the most sacred of political rights, the right of petition, I have heard both attacked and defended upon this floor, by very sufficient democrats, entirely upon precedents drawn from the practice of the British Parliament. Our community of origin, language, and law, exposes the younger nation to the constant danger of being overshadowed by the authority of the elder. It is a great evil to a young and growing people, as well as to a youthful and aspiring spirit, to have its energies cramped, and its originality smothered, by a servile spirit of conformity to any one model however excellent; and it is quite time for us to learn, that there are other sources of instruction than the counsels and example of our ancient mother.

Sir, I make these remarks in no narrow feeling of jealous hostility to England; still less at this crisis, when some are seeking to raise a whirlwind of popular indignation against that country, upon which they may themselves float to power, would I join in any vulgar denunciations of a people from whom we have borrowed so much. We owe to England much of our political principles, many of the foundations of our civil and religious liberties, many of the most valuable features of our jurisprudence. Something, indeed, we have repaid. England, in common with all Europe, has profited by our experience. The grasp of feudal oppression has been relaxed, the atrocious severity of the criminal law has been mitigated, judicial proceedings have been simplified, the subject has been admitted to a larger

participation in the concerns of government, monopolies are becoming obsolete, and the responsibilities of rulers are felt to be more stringent. To the credit of many of these ameliorations we may fairly lay claim; while in science, and its application to the arts, we have sustained no disgraceful rivalry with our transatlantic brethren. But no generous man thinks his debt of gratitude cancelled till it is thrice repaid, and we have therefore yet much to do, before we can say that America is no longer the debtor of England. Let us, then, seize this one opportunity which a son of her own has offered us, and build with it a pharos, whose light shall serve as well to guide the mariner in the distant horizon, as to illuminate him who casts anchor at its foot.

But what are we offered instead of the advantages which we might hope to reap from such a library as I have described? We are promised experiments and lectures, a laboratory and an audience hall. Sir, a laboratory is a charnel house, chemical decomposition begins with death, and experiments are but the dry bones of science. It is the thoughtful meditation alone of minds trained and disciplined in far other halls, that can clothe these with flesh, and blood, and sinews, and breathe into them the breath of life. Without a library, which alone can give such training and such discipline, both to teachers and to pupils, all these are but a masqued pageant, and the demonstrator is a harlequin. This is not a question of idle speculation, it is one that experience has answered. There are no foci which are gathering and reflecting so much light upon the arcana of natural science as the schools of Paris and of Germany, and all scholars are agreed that the great libraries of those seminaries, and the mental discipline acquired by the use of them, are, if not the sole means, at least necessary conditions, of their surpassing excellence.

But we are told that these experimental researches will guide us to the most important of all knowledge, that, namely, of common things. Sir, what are common things? Is nothing common but these material frames of ours; nothing, but the garments we wear, the habitations that shelter, and the food that nourishes us; nothing, but the air we breathe, the fowls of heaven, the beasts of the field, the herbs, the trees, and the rocks around us? Is nothing common but the glittering sands beneath our feet, and the glittering stars on which we gaze? Sir, these are indeed common, and well it is to understand their uses, and so far as our dim vision can pierce, even their natures also. But are there not things even more common, nearer to our inmost selves, harder indeed, but more profitable to be understood; objects not limited by the three dimensions, not ponderable, not cognizable by any of the senses, and yet subjects of precise definition, of logical argument, of philosophical interest, and of overwhelming importance? Sir, the soul of man is a very common thing; his relations to his Maker and to his fellows, the laws of his moral and intellectual being, his past history and his probable future destiny, the principles of government and the laws of political economy—all these are common things, the commonest indeed of all things, and shall we make no provision for instruction in these?

But, sir, the knowledge of what are called the physical sciences is of far less importance, even in reference to the very objects which they are supposed especially to promote, than is generally believed. There was an age—I should say ages—brilliant and glorious ages of philosophers, of statesmen, of patriots, of heroes, and of artists, and artizans too; when, as yet,

the sciences of chemistry, and mineralogy, and metallurgy had neither name nor being—when experimental research was unknown, and the raw material of the arts was prepared for subsequent manipulation in no laboratory but the hidden workshops of nature—when the profoundest philosophers were content with resolving all material things into the four elements, and men knew nothing of that subtle analysis and those strange powers, whereby the elements themselves are decomposed, the ingredients of the atmosphere solidified, and granite, porphyry and adamant, resolved into imperceptible gases. And what, sir, have our boasted researches taught us to accomplish in the industrial arts, that the cunning workmen of Egypt, and Tyre, and Greece could not do three thousand years ago? Can our machinery rear loftier piles than the pyramids, or move more ponderous masses than the stones of Persepolis, or the monolithic temples of Egypt? Is a European princess arrayed in finer webs than the daughter of a Pharaoh, or decked in colors more gorgeous than the Tyrian purple? Can the chemistry of England compound more brilliant or more durable pigments than those which decorate the walls of the catacombs of the Nile? Can the modern artist, with all the aid of his new magnifiers, rival the microscopic minuteness of some ancient mosaics; or can the glass-workers of our times surpass the counterfeit gems of antiquity?

Sir, modern chemistry, metallurgy, and machinery have multiplied, cheapened, and diffused—not improved—the products of industrial art; and herein lies our superiority, not that we can do *better*, but, by bringing to our aid the obedient forces of nature, we can do *more*, than our predecessors. In this point of view, regarding modern improvements in these arts as the great equalizers of the conditions of different ranks in society, no man can estimate them more highly than I do, and I hope soon to have an opportunity of showing that I duly appreciate them. But I must protest against that classification of the objects of human knowledge, which, by giving them an undue pre-eminence, elevates empiricism above true science, prefers matter to mind, and, in its zeal to advance the means, quite loses sight of the end.

Sir, these arts are the right hand, not the spirit, of true progressive democracy; they are the lever that shall move the world, not the immaterial mind that shall guide it.

Mr. Chairman, at present I neither propose nor expect any modification of this bill. I am content with it as an experiment, though I should prefer the appropriation of the entire income of the fund for one generation—three times only as long as it has now lain idle—to the purpose of founding such a library as the world has not yet seen. If I support the bill, I shall support it, I repeat, as an experiment, but in the confident hope that the plan will soon be so changed as to make the Smithsonian Institution a fitter representative of a charity which embraces all knowledge as its object, and appoints the whole human race its beneficiaries.

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